REMARKS

Claims 1-46 are currently pending in the subject application, and are presently under consideration. Claims 1-46 are rejected. Claim 9 has been amended to correct a typographical error. Favorable reconsideration of the application is requested in view of the amendments and comments herein.

I.   Interview Summary

Applicant appreciates the courtesy extended during a telephone interview on August 19, 2008, in which the subject matter of independent claims 1, 16 and 33 was discussed relative to U.S. Patent No. 5,657,472 to Van Loo (hereinafter, "Van Loo"). During the interview a general agreement was reached regarding deficiencies of Van Loo relative to what is being claimed. At the end of the Interview the Examiner indicated that he did not have authority to negotiate, but that in view of the deficiencies of Van Loo relative to what was being claimed further searching would likely be required, which (depending on the search results) could result in another non-final action.

II.   Rejection of Claims 1-46 under 35 U.S.C. 102(b)

Claims 1-46 have been rejected under 35 U.S.C. 102(b) as being anticipated by Van Loo. Claim 9 has been amended to correct an obvious typographical error. Since no new matter has been added by this amendment, any subsequent action on the merits should be either a notice of allowance or, as discussed with the Examiner, a non-final action.

The Office Action alleges that the P_REPLY disclosed at Col. 11, lines 10 – 12, of Van Loo acts as the acknowledgement disclosed in the application. However, according to Van Loo (at Col. 11, lines 10 – 20), the P_REPLY is sent in response to a system controller request (S_REQ). Additionally, Van Loo teaches that the P_REPLY is used to trigger the S_REPLY. See Van Loo, Col. 11, lines 22-25. Further information about what each of the S_REQ, S_REPLY and P_REPLY is provided at Col. 10, line 35, through Col. 11, line25. Since the P_REPLY is used to trigger the S_REPLY, Van Loo cannot anticipate the requestor that provides the acknowledgement message to the home node in response to the transaction reference.

The Office Action also contends that an S_REPLY allows the requester to determine an order of request at a home node relative to the request from the requester. Since Col 15, lines 48 – 61 of Van Loo teaches that the S_REPLY(s) are sent in the same order they were originally issued by the requesting port, it seems illogical that such S_REPLY(s) of Van Loo would enable the requesting ports to determine the order of requests relative to the request from the requester. Applicant requests that the Examiner identify specific evidence that the S_REPLY is used by a requestor in the manner recited in claim 1 or the rejection be withdrawn.

Regarding claim 2, Van Loo teaches that the snoop operation is performed after the System Controller receives a coherent request (Col. 21, lines 51 – 53). Van Loo further teaches that the S_REPLY message is used to set up a data path - either when the System Controller is ready to set up the data path needed to perform the requested transaction, or when the requested transaction is complete (if the transaction does not involve a data transfer) (Col. 10, lines 54 – 58). That is, the S_REPLY in Van Loo is performed subsequent to performing the snoop operation. Accordingly, Van Loo does not teach that the snoop is provided substantially in parallel with providing the transaction reference, as recited in claim 2.

Regarding claim 6, the Office Action references Van Loo at Col. 22, lines 46 – 55, to support the rejection of claim 6. This cited section of Van Loo, and Van Loo more generally, fails to teach or disclose a requester that is configured to employ data for a single use under the particular conditions recited in claim 6. Instead, the cited section of Van Loo discloses an invalidate command is sent to the cache memory storing the same data block as the data block being written to the main memory. Applicant respectfully requests that the Examiner identify specifically where Van Loo (explicitly or inherently) teaches the single use of data consistent with what is recited claim 6. In the absence of such a showing, the rejection should be withdrawn.

Claim 9 depends from claim 8, which introduces a second requester that provides a request and a particular order at which the home node receives the second request subsequent to the first request. Claim 9 has been amended to correct a typographical error. Claim 9 further recites that the home node issues transaction reference associated with the second request, which is provided by the second requester (claim 8). The reliance of Van Loo at Col. 71, lines 30-39 relates to clearing a S_REQ status bit when a P_REPLY is received. From the rejection of claim

1, from which claim 9 depends, the Office Action contends that the S_REPLY corresponds to the claimed transaction reference. Therefore the reliance on this section of Van Loo is internally inconsistent with the rejection of claim 1. Moreover, the P_REPLY is used by a port to acknowledge a system controller request (S_REQ). Van Loo at Col. 11, lines 10-12. Thus, the cited section Van Loo at Col. 71, lines 30-39, simply clears a status bit when a port acknowledges the S_REQ - not information indicating that a request has been completed (Claim 9).

Claim 10 depends from claim 9 and recites additional information about the transaction information at the home node. Van Loo fails to teach these features for reasons similar to those discussed with respect to claim 9.

Regarding claim 11, it is pointed out that the requester of claim 1 comprises a processor having a miss address file. In contrast, the cited section of Van Loo at Col. 71 relates to the use of a S_REQ FIFO buffer that is part of the system controller - not the requester. For example, all S_REQ's for each processor are stored in a FIFO to ensure ordering requirements. See Van Loo, Col. 71, lines 22+. Moreover, the S_REQ status bits are cleared in response to receiving corresponding P_REPLY, which the Office Action in its rejection of claim 1 asserts corresponds to the acknowledgement message and the S_REPLY corresponds the transaction reference. Office Action at page 2.

Claims 12, 13 and 14 depend from claim 11 and recite further features of the processor, which (from claim 11) the requester comprises such processor. Such interrelationships and features in these claims are absent from Van Loo.

Regarding claim 16, similar to as discussed above with respect to claim 1, the P_REPLY (provided from a UPA port to acknowledge a request) is used by the system controller to trigger the S_REPLY from the system controller to the requestor. Col. 11, lines 10-12 and 22-25. The discussion at Col. 15, lines 10-27, of Van teaches how a system controller completes transactions for multiple transaction classes, each of which is separately ordered - but ordered nonetheless. The system controller in Van Loo utilizes transaction activation logic 300 to index block the incoming transactions from becoming active until the S_REQ completes to maintain S_REPLY ordering (Col. 61, lines 53 – 55). Nowhere in Van Loo does a requesting processor employ a

transaction reference to ascertain the relative order of the first and second requests for data ordered at the home node. This is confirmed with reference to Col. 71, lines 12+, of Van Loo, which the Office Action relies on for a teaching of a second requesting processor. Specifically, this cited section of Van Loo demonstrates that the ordering is controlled by request logic 350 of the system controller by maintaining a set of SReq buffers - one for each processor. Since the system controller controls the order in which S_REQ messages are sent, the processors in Van Loo do not ascertain a relative order of requests based on a transaction reference message, as recited in claim 16. Instead, this is maintained and controlled at the system controller - likely because such information about the order is not utilized by the processors.

The Office Action contends that claims 17-26 are rejected under similar logic used to reject claims 2-15. However, the multiprocessor system of claims 17-26 is not merely a repeat of claims 2-15, but instead recites structural and functional interrelationships that merit individual substantive scrutiny. For instance, claim 17 includes first and second processors that provide respective first and second requests (similar to dependent claim 8). Accordingly, in the absence of specifying specific reasons why such claims should be rejected, claims17-26 should be allowed. To the extent applicable, the Examiner may refer to the traversal of claims 2-15 for additional reasons why claims 17-26 are patentable.

Claim 27 is drafted from the perspective of a processor in a multiprocessor network. Despite claim 27 being directed to a processor, the Office Action cites the same sections of Van Loo to reject claim 27 as were cited to reject claim 1. As discussed above these sections pertain to a system controller 110 and not to a processor. In contrast to the position in the Office Action, Van Loo does not teach a processor that includes the transaction structure and controller for controlling how to respond to requests for data received from the home node as recited in claim 27.

Claims 28-32 recite additional structural and functional features of the processor of claim 28. The Office Action rejects claims 28-32 citing "similar logic" as was used to reject claims 2-15, but fails to identify which "similar logic" may apply to which particular claims. Due to the necessary amount of speculation as to which grounds may apply to claim 28-32 (since these claims relate a processor and are not identical to claims 2-15), Applicant is unable to formulate

an appropriate response to the grounds for rejection. In the absence of specifying the grounds for rejecting such claims, these claims should also be allowed. To the extent applicable, the Examiner may refer to the traversal of claims 2-15 for reasons why claims 28-32 are patentable.

Claim 33 relates to a multi-processor system, and is written in means plus function format. The cited section of Van Loo (Col. 10, lines 35-58) does not appear to teach providing a transaction reference message in parallel with a snoop in response to a requesting processor nor setting any field at such requesting processor in response to the transaction reference message. Clarification is requested as to what in Van Loo performs the recited function or this rejection should also be withdrawn.

Additionally, while a P_REPLY 122 is used to acknowledge a system controller request (e.g., a S_REQ), such a reply is not a provided in response to a request from a processor and especially is not provided based on a condition of a transaction reference field (See Van Loo at Col. 11, lines 10-12) consistent with what is recited in claim 33.

The S-REPLY, which is issued from the system controller, is provided in response to requests <u>from</u> the UPA port (Col. 15, lines 35-58) - not a request to a processor as is recited in claim 33. Moreover, as discussed above, there does not appear to be any transaction reference field at a processor that is used to control the response as recited in claim 33.

The Office Action rejects claims 34-39 under similar logic used to reject claims 2-15, but fails to identify which "logic" may apply to which particular claims. Due to the necessary speculation as to which grounds of rejection may apply to claim 41-46 (since these means plus function claims are not identical to claims 2-15), Applicant is unable to formulate an appropriate response to the grounds for rejection. In the absence of specifying the grounds for rejecting such claims, these claims should also be allowed. To the extent applicable, the Examiner may refer to the traversal of claims 2-15 for reasons why claims 34-39 are patentable.

Claim 40 is a method that is generally similar to the functions performed by claim 33 and therefore should be allowed for at least the same reasons discussed with respect to claim 33.

The Office Action rejects claims 41-46 citing "similar logic" as was used to reject claims 2-15, but fails to identify which "similar logic" may apply to which particular claims. Due to the

necessary speculation as to which grounds may apply to claim 41-46 (since these methods claims are not identical to claims 2-15), Applicant is unable to formulate an appropriate response to the grounds for rejection. In the absence of specifying the grounds for rejecting such claims, these claims should also be allowed. To the extent applicable, the Examiner may refer to the traversal of claims 2-15 for reasons why claims 41-46 are patentable.

## III.	CONCLUSION

In view of the foregoing remarks, Applicant respectfully submits that the present application is in condition for allowance. Applicant respectfully requests reconsideration of this application and that the application be passed to issue.

Should the Examiner have any questions concerning this paper, the Examiner is invited and encouraged to contact Applicant's undersigned attorney at (216) 621-2234, Ext. 106.

No additional fees should be due for this response. In the event any fees are due in connection with the filing of this document, the Commissioner is authorized to charge those fees to Deposit Account No. 08-2025.

I hereby certify that this correspondence is being transmitted to the U.S. Patent and Trademark Office via electronic filing on August 21, 2008.

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